

THERE IS CLAIMED:

1. A lidar detection system comprising a device for emitting a light signal, a device for transmitting a returned portion of said light signal toward a sensor that converts it into an electrical signal and comprises cells arranged in rows and columns and successively consists of an image region comprising at least one row of photocells onto which said portion of said light signal is focused and which convert said returned portion of said light signal into electrical charges, a memory region comprising a plurality of rows of cells that are not photosensitive, and a read region comprising a row of cells that multiply said electrical charges, and timing means for shifting said electrical charges along said columns, from said image region to said memory region and then to said read region and toward a processing device.
2. The lidar detection system claimed in claim 1 wherein said memory region comprises a single row of cells and said transmission device comprises a lens for focusing said returned portion of said light signal by contracting it in the direction of said columns and expanding it in the direction of said rows.
3. The lidar detection system claimed in claim 1, comprising means for adjusting the control voltage of said cells of said read region.
4. The lidar detection system claimed in claim 2, comprising means for adjusting the control voltage of said cells of said read region.
5. A method of detecting a light signal, comprising continual conversion of said light signal into electrical charges in a receiving portion of a sensor, periodic sampling of said signal by taking up charges accumulated in said receiver portion to form therefrom samples of said signal, and chained movement of said samples through a memory and then toward a processing device, in which method said samples are subjected to amplification in said sensor by multiplication of electrical charges just before being shifted toward said processing device but remain unchanged in said memory.